



Who Is Watching Out for Us?

Middle School Food and Agricultural Literacy Curriculum

Precepts

- A. Action
 - A4. Identify and use resources
- D. Character
 - D1. Live with integrity

National Standards

- AS.06.02.01.b. Discuss consumer concerns with animal production practices relative to human health.
- FPP.01.02.01.a. Explain the purposes of organizations that are part of or regulate the food products and processing industry.
- CS.01.01.04.a. Explore available resources to assist in meeting project needs.
- CS.01.04.01.c. Perform tasks with integrity.
- NL-ENG.K-12.4 – Communication Skills
- NL-ENG.K-12.12 – Applying Language Skills
- NS.5-8.6 – Science in Personal and Social Perspectives

Student Learning Objectives

- As a result of this **unit** the students will...
- Recognize the importance of animal product uses and consumer product awareness.
- As a result of this **lesson** the students will ...
- Identify appropriate agencies focusing on consumer awareness.

Content Outline

- I. **Bias – a personal judgment, introducing error into a sampling or test to encourage one outcome or answer over others.**
- II. **Credible – capable of being believed; plausible; worthy of confidence; reliable**
- III. **Determining if a resource is credible**
 - A. Publication date
 - B. Author(s)

Time

Instruction time for this lesson: 45 minutes.

Resources

bias. (2010). In Merriam-Webster Online Dictionary. Retrieved June 3, 2010, from <http://www.merriam-webster.com/dictionary/bias> — credible. (n.d.). The American Heritage® dictionary of the English language (4th ed.). Retrieved July 30, 2009, from Dictionary.com website: <http://dictionary.reference.com/browse/credible/> — National FFA Organization. (2003). LifeKnowledge Precepts and Signs of Success. — National FFA Organization. (2009). LifeKnowledge Online. Retrieved July 30, 2009, from <http://agedlearning.org> — National Pork Producers Council. (2008). Antimicrobials/ Antibiotics. Retrieved July 30, 2009, from <http://www.nppc.org/issues/antimicrobials.htm>

Tools, Equipment, and Supplies

Overhead projector/transparencies
Writing surface
Markers or chalk
Writing surface to record student answers
Writing utensils
MS.AS.4.2.TM.A – TM.F – one per class, posted around room prior to beginning of class
MS.AS.4.2.AS.A – AS.C – one per student
MS.AS.4.2.ASSESS.A – one per student

Key Terms

The following terms are presented in this lesson and appear in **bold italics**:

Bias

Credible

- C. Funding source
- D. Type of resource

IV. Agencies focusing on consumer awareness in the animal agriculture industry

- A. National Pork Board
 - 1. Current information on issues impacting the pork industry – www.pork.org
 - 2. Food safety and animal care in pork production – www.theotherwhitemeat.com
 - 3. And much more
- B. National Pork Producers Council – www.nppc.org
 - 1. Food safety bill updates



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2. National Animal Identification System (NAIS) updates
3. And much more
- C. National Cattlemen's Beef Association – www.beef.org
 1. Grilling tips for beef
 2. Beef nutritional facts
 3. And much more
- D. National Dairy Council – www.nationaldairycouncil.org
 1. Nutritional information for dairy products
 2. Dairy product updates for health professionals
 3. And much more
- E. American Sheep Industry Association – www.sheepusa.org
 1. Statistics and markets about sheep
 2. Directory of sheep breeds
 3. And much more
- F. American Meat Goat Association – www.meatgoats.com
 1. Goat judging courses
 2. Grant opportunities to raise goats
 3. And much more
- G. American Dairy Goat Association – www.adga.org
 1. Goat milk recipes
 2. How to read goat pedigrees
 3. And much more
- H. U.S. Poultry & Egg Association – www.poultryegg.org
 1. Updates on avian influenza (bird flu)
 2. Proper storage of eggs and poultry products
 3. And much more

Interest Approach

Before students arrive place **MS.AS.4.2.TM.A**, **MS.AS.4.2.TM.B**, **MS.AS.4.2.TM.C**, **MS.AS.4.2.TM.D**, **MS.AS.4.2.TM.E**, and **MS.AS.4.2.TM.F** around the room to be used later in the lesson for a *Go Get It e-Moment®*. Also, write the definitions of bias and credible on the writing surface.

Use the Me-You-Us e-Moment to start the students thinking about where they should look to find information. There are no right or wrong answers to the questions but their purpose is to encourage students to open their minds to the vast number of potential resources that surround them.

Thank you for being here today and bringing your critical eye and inquisitive brain. You will receive a challenge that will require you to dig deep into your brain and come up with some ideas. Let's direct our attention to the definitions on the board as I hand out this sheet.

Distribute **MS.AS.4.2.AS.A**.

Who will read the definitions loudly and clearly for the class?

Select volunteer.

Let's think about those definitions before we answer this question:

Is it possible to be both **biased** and accurate?

Allow time for students to respond.

Second question: Is it possible to be both **biased** and **credible**?

Allow time for students to respond.

Those wheels in your brains are burning up the asphalt! Great discussion!

When I say GO, you will have three minutes to think through the six questions on the page. You will write your answers in column two on the activity sheet. Read each question carefully and answer each question to the best of your ability. What questions do you have? GO.

When the three minutes are complete have students work with a partner to further develop their answers.

Your time ends now. Please set your writing utensil down. Looks like you have some very thoughtful answers. Your goal is to make those answers even better. Take the next two minutes and share your answers with your neighbor. Add to your answer as your neighbor shares their thoughts and vice versa.



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When the two minutes are complete have students share some of their answers with the entire class. Record their answers on a writing surface for all to see.

Thank your partner for sharing their wisdom.

Allow students to thank each other.

Let's put all of our ideas together to make the answers to these questions even better. When I point to your team, share your answer and I will record the answers on the board for everyone to see.

Point to teams and work through the six questions.

It's obvious that there are many resources out there to answer our questions. Sometimes the challenge isn't finding the answer to the question but rather narrowing down which resource provides the best answer. And we consumers have a lot of questions!

Today we are going to use a critical eye to determine the best resources to use for specific questions a consumer might have about the animal agriculture industry.

Summary of Content and Teaching Strategies

Objective 1. Identify appropriate agencies focusing on consumer awareness.

Begin by telling the students to imagine they have a research paper to write. The paper is about "Antibiotic Use." There is a tremendous amount of information out there but their challenge is to find credible information to use for the report. They have found an article about cloning (**MS.AS.4.2.AS.C**) and should use **MS.AS.4.2.AS.B** to determine if the article is credible and should be used in their report. Provide students with copies of **MS.AS.4.2.AS.B** and **MS.AS.4.2.AS.C**. Allow students to work through the activity sheets and then discuss what they learned.

Let's assume the assignment is to write a research paper on antibiotic use in animals. Antibiotic use is a very large issue and can be controversial, and there are many resources available.

The Internet is a great place to find information, but it's important to be cautious of the kind of information out there – is it **credible**?

How can we determine if the information found on an Internet site is **credible** and reliable?

Ask students to share their responses and record them on a writing surface where everyone can see.

How can we determine if the information is **biased**?

Ask students to share their responses and record them on a writing surface where everyone can see.

Faulty information can be shared anywhere: Some stories and articles printed in magazines and newspapers may contain incomplete information. Data gleaned from the Internet or by word of mouth may be inaccurate. This is why learning to review resources with a critical eye is important. We don't want to go around thinking we have the right answer when we really don't, do we? No way! Because, sure enough, someone will be there to prove us wrong.

Pass out **MS.AS.4.2.AS.B** to each student and give students time to evaluate the article on **MS.AS.4.2.AS.C** about cloning. If you have a different article or topic that you would like to use, feel free to substitute it for the cloning example.

Imagine you have just found this article about antibiotics and need to decide if you should use it for your report. Use this activity sheet to help you in deciding if the article is **credible**. You have seven minutes to read through the article and answer the questions on the activity sheet. Raise your hand if you have any questions along the way and I will attempt to answer them. Your time begins when you receive the activity sheet.

Circulate around the room to answer questions that may arise. When students have completed the activity sheet, discuss their answers and talk about why students answered the questions the way they did. At the conclusion mention the importance of the resources being trustworthy just like it is important for all of us to demonstrate integrity in life.

Let's discuss how you answered the questions as you looked at the article through a critical eye.



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Continue by discussing the questions. Thoughts that will want to be touched upon include:

1. References should be somewhat current. As information gets older there may be new information that has come along. 2. Authors should be knowledgeable and have expertise in the field they are discussing. 3. It is also important to understand who may be funding or sponsoring an article because that may play a role in what is presented. 4. The purpose of the article should be considered because it may be written for a purpose that does not match your need to use it.

Thank you for sharing your thoughts. We want the resources that we use to be honest and factual. We want to use only the resources we can trust. This is similar to life, in that we all need to be honest and demonstrate integrity. If we do not do this people will not trust us and we will soon find ourselves with a lack of friends and people who believe in us.

Place the credible resources listed on **MS.AS.4.2.TM.** **A, MS.AS.4.2.TM.B, MS.AS.4.2.TM.C, MS.AS.4.2.TM.D, MS.AS.4.2.TM.E, and MS.AS.4.2.TM.F** around the room to be used for a *Go Get It e-Moment*. Each teacher master includes credible resources for different species and includes a couple of examples of what information might be found from each of the resource groups.

Credible resources in the animal agriculture industry

- A. National Pork Board
 - 1. Current information on issues impacting the pork industry – www.pork.org
 - 2. Food safety and animal care in pork production – www.theotherwhitemeat.com
 - 3. And much more
- B. National Pork Producers Council – www.nppc.org
 - 1. Food safety bill updates
 - 2. National Animal Identification System (NAIS) updates
 - 3. And much more
- C. National Cattlemen's Beef Association – www.beef.org
 - 1. Grilling tips for beef
 - 2. Beef nutritional facts
 - 3. And much more

- D. National Dairy Council – www.nationaldairycouncil.org
 - 1. Nutritional information for dairy products
 - 2. Dairy product updates for health professionals
 - 3. And much more

- E. American Sheep Industry Association – www.sheepusa.org
 - 1. Statistics and markets about sheep
 - 2. Directory of sheep breeds
 - 3. And much more

- F. American Meat Goat Association – www.meatgoats.com
 - 1. Goat judging courses
 - 2. Grant opportunities to raise goats
 - 3. And much more

- G. American Dairy Goat Association – www.adga.org
 - 1. Goat milk recipes
 - 2. How to read goat pedigrees
 - 3. And much more

- H. U.S. Poultry & Egg Association – www.poultryegg.org
 - 1. Updates on avian influenza (bird flu)
 - 2. Proper storage of eggs and poultry products
 - 3. And much more

As we should be trustworthy, so should the resources we use be credible. What are some of the consequences of a person not being trustworthy? Solicit answers.

When you hear FIND, you are to record the names of some **credible** resources in the animal agriculture industry. Around the room are six sheets containing information about a different species and a list of **credible** resources to find information. Write down the information you find around the room on the back side of your activity sheet. You will have eight minutes to neatly fill in your information. Let's return to our seats when we have recorded information from all six sheets. What questions can I answer? FIND.

Announce the remaining time for the students to keep them on task. As students finish answer any questions that they may have as they work around the room.



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Excellent work! Now let's share what we found.

Review/Summary

Review the information that students recorded from around the room to make sure they have captured the names of the resources and some of the information that can be found from each. Do this by asking students to point to the resource, posted around the room from the Go Get It e-Moment, where they would go to find the information desired. When all students are pointing at the correct resource have them verbally say the resource name.

Use your new list of **credible** resources and the information that can be found at each to answer the following questions. I will say an item of information I want to know about and you direct me, by pointing, to the resource I should look at. When we all agree I will ask all of you to say the name of the resource. What question do you have about how this will work?

Pause and allow students to ask questions.

I want to learn about "updates on avian influenza."

Allow students to point until all are pointing at the U.S. Poultry & Egg Association.

You are all correct. What resource is that?

Allow students to verbally respond with U.S. Poultry & Egg Association.

Good work.

Continue this process until you have reviewed all the resources and then close by thanking the students for their efforts.

Thank you for using your critical eye to determine if a resource is **credible** and if contains some **bias**. Use these same patterns of thought whenever you encounter a large claim like what we read about concerning antibiotics. It's just as important to have accurate information from a **credible** source as it is to have accurate information from an **unbiased** source.

Application

Extended classroom activity:

Have students go on a web-based scavenger hunt. Give them a specific species of animal and ask them to find credible information related to that species. They should report back with a web address, a contact number, year of last update to the site, and two interesting facts they learned about the species of animal.

FFA activity:

Have students design a presentation with a handout that explains where to look for information in relation to the animal industry. On the handout include ways to determine if a resource is credible.

SAE activity:

Have students pick a career that they are interested in and compile a list of resources available to learn more about that career. Resources should be evaluated for credibility and current information. Using the resources the student can then learn more about the career of their choice.

Evaluation

MS.AS.4.2.ASSESS.A.

Answers to Evaluation

1. D
2. E
3. C
4. G
5. A
6. B
7. F
8. H



Task	Where I would look to find the answer?	Would there be bias in this information?
1. Define the word "agriculture."		
2. How many American presidents' first names started with "J"?		
3. What are the dangers in animal cloning?		
4. What is playing at the local movie theater this weekend?		
5. What state produced the most swine last year?		
6. How many pounds are in a bushel of corn?		



Looking at a Resource with a Critical Eye

Title of resource: _____

Date published: _____

Who (author) or what (group) is the source of this information? _____

Is there someone/organization that specifically funded this information? What might their biases be?

What type of resource is this: informational, educational, non-profit, opinion, media, scientific journal, encyclopedia, dictionary, or other?

What are the key points presented in the resource?

Do you think this source is credible or not? Explain.



Antimicrobials/ Antibiotics

IMPORTANCE

As pork industry representatives, we recognize it is our moral obligation to provide for the well-being of our animals and to raise them in a humane and compassionate manner. Current and future availability of safe and effective animal health products are important to pork producers, who depend on these products to maintain healthy and productive animals, prevent animal suffering and to ensure that consumers have access to safe and wholesome pork products.

BACKGROUND

Antibiotics have been used to treat and prevent disease or promote growth in animals for more than 50 years. Like physicians and their patients, veterinarians and their clients share responsibility for the proper use of antibiotics. Antibiotics are tools used by veterinarians and producers to quickly address clinical and sub-clinical disease and keep animals healthy and productive. The U.S. Food and Drug Administration (FDA) must approve animal health drugs before they can be utilized. To win approval, a drug maker must demonstrate that the product is effective and safe for the animal and safe for the environment. FDA must also determine that new antibiotics for food animals are safe with regard to human health. FDA approves antibiotics for four purposes: treatment of illness, prevention of disease, control of disease, and nutritional efficiency of animals. According to the Animal Health Institute, approximately 13 percent of animal antibiotics are used for nutritional efficiency.

NPPC POSITION

Existing FDA regulations provide adequate safeguards against antibiotic resistance. NPPC actively participates in public discussions on the use of antibiotics. Pork producers stress that animal health products, including antibiotics, must be available to maintain the health of their animals. The National Pork Board's "Take Care: Use Antibiotics Responsibly" is a program that demonstrates the pork industry's fullest intention to provide for both veterinarians and producers the principles and guidelines for guarded antibiotic use. NPPC supports research and educational programs aimed at antibiotic use for pork production. Any regulatory decisions or legislative action on antibiotic use in animals must be transparent and made based on scientific risk analysis.

National Pork Producers Council. (2008). Antimicrobials/Antibiotics. Retrieved July 30, 2009, from <http://www.nppc.org/issues/antimicrobials.htm>



Swine Resource Groups

National Pork Board

- 1. Current information on issues impacting the pork industry**
– www.pork.org
- 2. Food safety and animal care in pork production** – www.theotherwhitemeat.com
- 3. And much more**

National Pork Producers Council

www.nppc.org

- 1. Food safety bill updates**
- 2. National Animal Identification System (NAIS) updates**
- 3. And much more**



Beef Resource Groups

National Cattlemen's Beef Association
www.beef.org

- 1. Grilling tips for beef**
- 2. Beef nutritional facts**
- 3. And much more**



Dairy Resource Groups

National Dairy Council

www.nationaldairycouncil.org

- 1. Nutritional information for dairy products**
- 2. Dairy product updates for health professionals**
- 3. And much more**



Sheep Resource Groups

American Sheep Industry Association

www.sheepusa.org

- 1. Statistics and markets about sheep**
- 2. Directory of sheep breeds**
- 3. And much more**



Goat Resource Groups

American Meat Goat Association

www.meatgoats.com

- 1. Goat judging courses**
- 2. Grant opportunities to raise goats**
- 3. And much more**

American Dairy Goat Association

www.adga.org

- 1. Goat milk recipes**
- 2. How to read goat pedigrees**
- 3. And much more**



Poultry Resource Groups

U.S. Poultry & Egg Association

www.poultryegg.org

- 1. Updates on avian influenza (bird flu)**
- 2. Proper storage of eggs and poultry products**
- 3. And much more**



Name: _____

Directions: Write the letter for the correct resource in the space where you would find the listed information. Each resource will be used once.

A.	American Dairy Goat Association	B.	American Meat Goat Association
C.	American Sheep Industry Association	D.	National Cattleman's Beef Association
E.	National Dairy Council	F.	The Other White Meat
G.	National Pork Producers Council	H.	U.S. Poultry & Egg Association

- _____ 1. Beef nutritional facts
- _____ 2. Dairy product updates for health professionals
- _____ 3. Directory of sheep breeds
- _____ 4. Food safety bill updates
- _____ 5. Goat milk recipes
- _____ 6. Grant opportunities to raise goats
- _____ 7. Food safety in pork production
- _____ 8. Updates on avian influenza (bird flu)